Railroad Commission of Texas

Distribution Integrity Management

August 11, 2021

The meeting will begin shortly.

Distribution Integrity Management

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Power Point Presentation

This presentation is available for download from the RRC website at https://www.rrc.texas.gov/oil-and-gas/workshops-and-conferences/rrc-regulatory-webinars/regulatory-webinars-2021-schedule/

Agenda

- Framework of DIMP Program (192.1001-192.1011)
- Building a DIMP Program
- Common Mistakes
- Facility Replacement Program (TAC 8.209)
- What to expect from an Inspection

FRAMEWORK OF DIMP PROGRAM (192.1001-192.1011)

Steps of a DIMP Program

1. Knowledge of the System - 192.1007(a)
2. Identify Threats - 192.1007(b)
3. Evaluate and Rank Risk - 192.1007(c)
4. Identify and implement measures to address risks - 192.1007 (d)
5. Measure performance, Monitor results, and evaluate effectiveness - 192.1007(e)
6. Periodic Evaluation and Improvement - 192.1007(f)
7. Report results - 192.1007(g)

Steps 1 of a DIMP Program

1. Knowledge of the System - 192.1007(a)
   - ***What do you have?***
   - Define your system? (maps, demarcation valves, etc)
     - City Gate to meter set
     - you need to know what you have and where it is

Steps 2 of a DIMP Program (1 of 2)

2. Identify Threats - 192.1007(b)
   - ***What problems are you having?***
   - Pipeline Hazardous Material Safety Administration (PHMSA) – Gives you eight (8) primary threat categories

Steps 2 of a DIMP Program (2 of 2)

2. Identify Threats - 192.1007(b)
   - Pipeline Hazardous Material Safety Administration (PHMSA) – Eight (8) primary threat categories
     - Corrosion
     - Natural Forces
     - Excavation Damage
     - Other Outside Force Damage
     - Material or Welds
     - Equipment Failure
     - Incorrect Operation
     - Other Concerns
   - Option for subcategories
     - Example: Corrosion – External, Internal, atmospheric

Step 3 of a DIMP Program (1 of 4)

3. Evaluate and Rank Risk - 192.1007(c)
   - ***What is the biggest problem(s) you are having?*** Rank all eight (8) threat categories
     - Must rank subcategories if you elect to use them
   - Optional Subdividing System
     - If you subdivide your system you must have sperate risk rankings for each subdivision

Step 3 of a DIMP Program (2 of 4)

3. Evaluate and Rank Risk - 192.1007(c)
   - ***Example 1**:*
     1. Excavation Damage
     2. Corrosion
     3. Equipment Failure
     4. Other Outside Force Damage
     5. Material or Welds
     6. Natural Forces
     7. Incorrect Operation
     8. Other Concerns – must be lower than 10%

Step 3 of a DIMP Program (3 of 4)

3. Evaluate and Rank Risk - 192.1007(c)
   - ***Example 2:***
     - ***North District***
       1. Equipment Failure
       2. Incorrect Operation
       3. Excavation Damage
       4. Corrosion
       5. Natural Forces
       6. Other Outside Force Damage
       7. Material or Welds
       8. Other Concerns

Step 3 of a DIMP Program (4 of 4)

3. Evaluate and Rank Risk - 192.1007(c)
   - ***Example 2 cont.:***
     - ***South District***
       1. Other Outside Force Damage
       2. Excavation Damage
       3. Corrosion
       4. Equipment Failure
       5. Incorrect Operation
       6. Material or Welds
       7. Natural Forces
       8. Other Concerns

Step 4 of a DIMP Program (1 of 2)

4. Identify and implement measures to address risks - 192.1007 (d)
   - ***What are you going to do about your biggest problem?***
   - Give yourself credit for what you are doing beyond code requirements

Step 4 of a DIMP Program (2 of 2)

4. Identify and implement measures to address risks - 192.1007 (d)
   - *Example:*
     - Excavation Damage - Third Party Damage
       - Booth at high school football games promoting 811 – Call before you dig.
     - Corrosion – Atmospheric
       - Increasing frequencies of atmospheric inspections
   - Document, Document, Document

Step 5 of a DIMP Program (1 of 5)

5. Measure performance, monitor results, and evaluate effectiveness - 192.1007(e)
   - ***Did the items in step 4 work?***
   - ***Is your program helping or working?***
   - Compare your results with previous years and your Baseline

IMPORTANT!

Baseline for each Performance Measures (192.1007(e))

Step 5 of a DIMP Program (2 of 5)

- Baseline for each Performance Measures (192.1007(e))
  - Baseline for DIMP is **different** from Baseline for IMP (Gas & Liquids Transmission)!!!
  - A “Baseline” for DIMP is typically a year or series of years that the operator “establishes” and is required to compare to, for each Performance Measure under 192.1007(e), over the years since 2011.
  - Simple Handy Risk-based Integrity Management Plan (SHRIMP) tool does not do baseline for you!!!

Step 5 of a DIMP Program (3 of 5)

- Baseline for each Performance Measures (192.1007(e)(i-iii))
  - "(i) **Number of hazardous leaks** either eliminated or repaired as required by § 192.703(c) (or total number of leaks if all leaks are repaired when found), categorized by cause;
  - (ii**) Number of excavation damages;**
  - (iii) **Number of excavation tickets** "

Step 5 of a DIMP Program (4 of 5)

- Baseline for each Performance Measures (192.1007(e)(iv-vi))
  - "(iv) **Total number of leaks** either eliminated or repaired, categorized by cause;
  - (v) **Number of hazardous leaks** either eliminated or repaired as required by § 192.703(c) (or total number of leaks if all leaks are repaired when found), **categorized by material;** and
  - (vi) Any additional measures the operator determines are needed to evaluate the effectiveness of the operator's IM program in controlling each identified threat"

Step 5 of a DIMP Program (5 of 5)

5. Measure performance, monitor results, and evaluate effectiveness - 192.1007(e)
   - ***Example:***
   - Number of Excavation Tickets
   - Calendar Year 2016 – 2145 – (Baseline)
   - Calendar Year 2017 – 2349
   - **Calendar Year 2018 – 3894**
   - Calendar Year 2019 – 2930
- Must be able to explain trends

Step 6 of a DIMP Program (1 of 2)

6. Periodic Evaluation and Improvement - 192.1007(f)
   - ***Is your program working?***
   - ***Go Back to Step 1***
   - 192.1007(f) - "… An operator must conduct a ***complete*** program re-evaluation at least every five years. …"

Step 6 of a DIMP Program (2 of 2)

6. Periodic Evaluation and Improvement - 192.1007(f)
   - ***Example:***
   - Go Back to Step 1 and walk through every step.
     - Update information
     - Re-run Risk model – Rankings may change
     - Take appropriate steps to address changes

Step 7 of a DIMP Program

7. Report results - 192.1007(g)
   - Annual Reports
   - Mechanical fitting failure reports PHMSA – F-7100.1-2
   - Must Keep Records for 10 years
- ***Document, Document, Document***
   - If you don't document it, it never happened
   - Give yourself credit for what you are doing

Steps of a DIMP Program

1. Knowledge of the System - 192.1007(a)
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6. Periodic Evaluation and Improvement - 192.1007(f)
7. Report results - 192.1007(g)

BUILDING A DIMP PROGRAM

Building a DIMP Program (1 of 6)

- Building a DIMP program is like building a house.

Building a DIMP Program (2 of 6)

- Knowledge of system is your foundation for everything that follows. (step 1)
  - You need to know what you have and where it is.
- From the City Gate to the Customer Meter
- Gather information from your service technicians before it is too late.
- Make sure your maps and documents are complete and accurate
- Subject Matter Experts (SME)
  - You are the SME for your system!!!

Building a DIMP Program (3 of 6)

- Risk Model (step 3)
  - Simple Handy Risk-based Integrity Management Program (SHRIMP)
  - Third Party Contractor
  - Develop internal model (SME based)
- No model is perfect, and you must check to make sure the results makes sense.
- The SHRIMP Model does not do Baseline for you!!!

Building a DIMP Program (4 of 6)

- Annual Summaries (steps 4-6)
  - Not required by code but is very useful for documentation purposes
  - Summarize what DIMP activities you did during that calendar year
  - Explain trends on what happened that year
  - Doesn’t have to be long – Simple 1-2 page report

Building a DIMP Program (5 of 6)

- Annual Summaries – (Cont.)
  - Example:
    - Include Annual Report numbers, what "measures to reduce risk" activities did you conduct, Facility replacement activities
    - Trends - Excavation ticket example –
      - Why did 2018 On Call Tickets increase?
      - Due to AT&T coming through your town and installing fiber optic cables.

Building a DIMP Program (6 of 6)

- If you don’t do every step completely and correctly, your house will fall apart
- There is always room for improvement

COMMON MISTAKES

Common Mistakes (1 of 2)

- Common Violations
  - Baseline for each performance measure (192.1007(e))
    - Procedures for establishing baseline
    - Lack of or incomplete documentation
    - Baseline is not clearly stated
  - Periodic Review (192.1007(f))
    - Not meeting the required or specified intervals
    - Lack of documentation

Common Mistakes (2 of 2)

- Common Violations
  - Lack of Documentation showing implementation of DIMP (192.1011)
    - Every step needs to have records to support
  - Lack of Procedures and/or documentation for the Facility Replacement Program (TAC 8.209)
    - Not specifying what is the highest ranked facility
    - Not meeting the 8% replacement per year

FACILITY REPLACEMENT PROGRAM (TAC 8.209)

Facility Replacement Program (1 of 3)

- Texas Administrative Code (TAC 8.209)
- Facility Replacement Program
  - 8.209(a) - “The risk-based program will work in conjunction with the Distribution Integrity Management Program (DIMP) using scheduled replacements to manage identified risks associated with the integrity of distribution facilities.”

Facility Replacement Program (2 of 3)

- Texas Administrative Code (TAC 8.209)
- Facility Replacement Program - Update
  - 8.209(h) – “All replacement programs require a minimum annual replacement of 8% of the pipeline segments or facilities posing the ***greatest risk*** in the system and identified for replacement”
  - Change from 5% to 8%
    - Effective January 6, 2020

Facility Replacement Program (3 of 3)

- Texas Administrative Code (TAC 8.209)
- Facility Replacement Program
  - 8.209(i) –
    - "… No later than March 15 of each year, each operator must file with the Division:
    - (1) by System ID, a list of the steel service line or other distribution facilities replaced during the prior calendar year; and
    - (2) the operator's proposed work plan for removal or replacement for the current calendar year …"
  - Safety@rrc.texas.gov

WHAT TO EXPECT FROM AN INSPECTION

DIMP Inspections (1 of 5)

Pre-Inspections

- NEW DIMP RRC Form - Updated
  - Combination of Federal and TAC Code
  - TAC§8.209 – Distribution Facilities Replacements
  - Please as your inspector(s) for the latest form

DIMP Inspections (2 of 5)

- Come prepared with
  - Records
    - Any record that supports DIMP activities and compliance with code
  - DIMP Manual / Procedures
  - Supporting Documentation
    - Maps, leak and repair records, leak complaints, annual summaries, etc.

DIMP inspections (3 of 5)

- Come prepared with (cont.)
  - Operating Personnel and have Other Manuals Handy
    - Operations & Maintenance Manuals
    - Facility Replacement Program (TAC 8.209)

DIMP inspections (4 of 5)

- Post Inspections
  - If you receive a violation(s)
    - Please respond with documentation or evidence that alleged violation(s) was corrected
  - Open door policy

DIMP inspections (5 of 5)

- DIMP should be a live document and needs to be maintained every year
- Document, Document, Document!!!
  - –Every step,
  - –Every action,
  - –Every year!!!

Contact Information

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Question, Comments, or Social Observations

Evaluation & Archive Video

Evaluation

- Please complete the evaluation available on the RRC website at https://survey.alchemer.com/s3/6403402/2021-RRC-Regulatory-Webinars-Oil-Gas-and-Pipeline-Safety-Evaluation

Archive Video

- A link to the archive video of the webcast will be available on the same webpage as the presentation.